

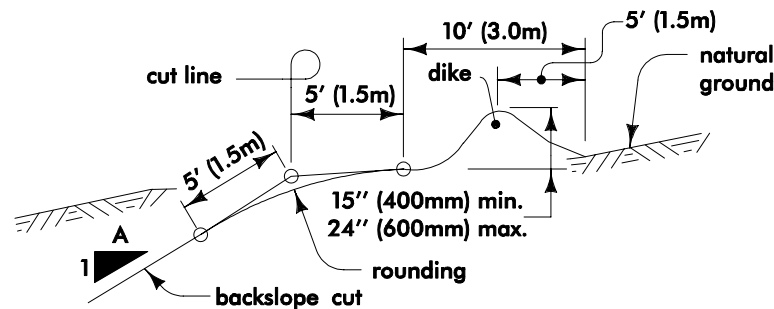
# Intercepting Ditches

**Design Manual**  
**Chapter 3**  
**Cross Sections**

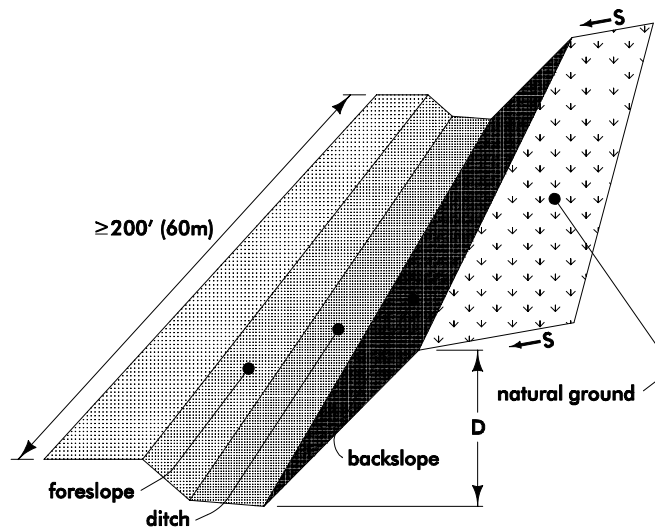
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Occasionally in areas where the natural ground above a backslope cut slopes toward a roadway ditch, or if the roadway ditch is 10 feet (3.0 meters) deep or more, an intercepting ditch is needed. An intercepting ditch, Figure 1, is used to more gradually let water down into the roadway ditch. Three factors should be considered when determining where an intercepting ditch may be needed:

1. When the backslope is less than 10 feet (3.0 meters) to the roadway ditch bottom (D in Figure 2), no intercepting ditch is needed.
2. When D in Figure 2 is 10 feet (3.0 meters) or more, but less than 15 feet (4.5 meters) for at least 200 feet (60 meters), propose an intercepting ditch if the ground is sloping towards the backslope at 4% or greater.
3. When D in Figure 2 is 15 feet (4.5 meters) or more for at least 200 feet (60 meters), propose an intercepting ditch anytime the ground slopes towards the backslope for a distance of 1/4 mile (400 meters) or more.



**Figure 1:** Cross section of an intercepting ditch.



**Figure 2:** Roadway ditch.

All intercepting ditches should be carried ahead or back until D in Figure 2 is less than 10 feet (3 meters). The intercepting ditch should then end with a rip rap or erosion stone flume letdown into the roadway ditch. Road Design Detail 4101 provides construction details. Intercepting ditches should have a minimum of 8 inches (200 millimeters) of topsoil when available.

| Intercepting ditch locations do not need to be shown on the final plan and profile sheets. Instead, indicate their locations by using Tab 100-16.